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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,296	07/11/2003	Raymond Mark Nuber	13075US01 (22-0152)	4360

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POSZ LAW GROUP, PLC  
12040 SOUTH LAKES DRIVE  
SUITE 101  
RESTON, VA 20191

EXAMINER

GONZALEZ, AMANCIO

ART UNIT PAPER NUMBER

2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/04/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/618,296	<b>Applicant(s)</b> NUBER, RAYMOND MARK	
	<b>Examiner</b> Amancio Gonzalez	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/11/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Claims 1-3, 8, 10, 13, 14, 16-21, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noerpel et al. (US Pat 6249677) in view of Wiedeman et al. (US Pat 6072768).

Consider claims 1 and 10, Noerpel discloses a satellite communication system comprising a user terminal transmitting a request for communication with a content provider (see Noerpel: Abstract, col. 1 lines 34-41, col. 3 lines 20-50, col. 4 lines 39-67, col. 5 lines 1-12, figs. 1, 2). Noerpel discloses a content provider providing at least one of data and service (see Noerpel: col. 3 lines 32-50, col. 4 lines 50-52). Noerpel discloses a satellite **establishing a communication link** for transmissions between the user terminal and the content provider (see Noerpel: col. 3 lines 20-50) wherein the

satellite intercepts the request from the user terminal (**interception of the user's request is implicitly effected by the satellite propagating a spot beam –see Noerpel: col. 3 lines 20-27**), wherein the satellite communicates a status to the user terminal (**a status to the user terminal is implicitly sent by network 100, requesting retransmission from the user terminal, through the satellite upon failure of synchronization bits detection –see Noerpel: col. 3 lines 20-27**).

Noerpel does not particularly refer to **establishing a communication link** for transmissions between the user terminal and the content provider as “relaying” transmissions between the user terminal and the content provider. Wiedeman discloses relaying transmissions between the user terminal and the content provider (**content provider reads on gateways -see Wiedeman: col. 4 lines 39-45**).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Noerpel and have **establishing a communication link for transmissions between the user terminal and the content provider** defined as **relaying transmissions between the user terminal and gateways**, as taught by Wiedeman, thereby achieving effective communication between a user terminal and a satellite-based network, as discussed by Noerpel (**see Noerpel: col. 1 lines 30-42**).

Consider claim 18, Noerpel discloses a data communication satellite providing signal transmission and minimal processing of the signal (**the satellite transmits a spot beam –see Noerpel: Abstract, col. 2 lines 1-12, figs. 1 and 2 element 136**). Noerpel inherently discloses the satellite comprising an antenna for at least one of

transmitting and receiving the signal and a processor for intercepting a communication request, wherein the processor generates a response to the communication request **(interception of the user's request is implicitly processed by the satellite propagating a spot beam and detecting a failure of synchronization bits from the user terminal -see Noerpel: col. 3 lines 20-27).**

Noerpel does not particularly refer to the satellite having a hybrid payload. Wiedeman discloses a satellite having a hybrid payload **(hybrid payload satellite reads on dual mode satellite, on-board signal processing satellite and bent-pipe repeater satellite -see Wiedeman: col. 3 lines 57-67, col. 4 lines 1-6).**

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Noerpel and have **hybrid payload** defined as taught by Wiedeman, thereby implementing a dual-mode, pipe-bent and on-board signal processing satellite communication between a user terminal and a service provider network, as discussed by Noerpel.

Consider claim 2, Noerpel, as modified by Wiedeman, teaches claim 1; and Wiedeman further teaches wherein the data includes computer-related data (see Wiedeman: col. 13 lines 60-67).

Consider claim 3, Noerpel, as modified by Wiedeman, teaches claim 1; and Wiedeman further teaches wherein the service includes at least one of cellular phone service and audiovisual multicasting service (see Wiedeman: col. 1 lines 6-8 and 60-65, col. 3 lines 43-45, figs. 12-16).

Consider claim 8, Noerpel, as modified by Wiedeman, teaches claim 1; and Wiedeman further teaches the system comprising a plurality of user terminals (see Wiedeman: col. 11 lines 48-50).

Consider claims 13 and 14, Noerpel, as modified by Wiedeman, teaches claim 10; Noerpel further teaches transmitting data via the satellite to/from the user terminal and service provider (see Noerpel: col. 3 lines 20-50).

Consider claims 16, 17, 23, and 24, Noerpel, as modified by Wiedeman, teaches claims 10 and 18; Wiedeman further teaches channel assignment (see Wiedeman: col. 10 lines 10-14, col. 11 lines 48-56).

Consider claim 19, Noerpel, as modified by Wiedeman, teaches claim 18; and Wiedeman further teaches wherein the payload provides minimal processing of the signal (the payload provides minimal processing of the signal when it performs the function of a pipe-bent satellite -see Wiedeman: col. 3 lines 57-67, col. 4 lines 1-6).

Consider claim 20, Noerpel, as modified by Wiedeman, teaches claim 18; Noerpel further teaches wherein the communication request is generated by a user terminal (see Noerpel: Title, Abstract, col. 1 lines 34-42, col. 3 lines 1-10).

Consider claim 21, Noerpel, as modified by Wiedeman, teaches claim 18; Noerpel further teaches wherein the payload facilitates communication between a user terminal and a content provider (see Noerpel: Abstract, col. 1 lines 34-42, col. 3 lines 1-10 and 20-50, col. 4 lines 39-67, col. 5 lines 1-12, figs. 1, 2).

4. Claims 4 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noerpel et al. (US Pat 6249677) in view of Wiedeman et al. (US Pat 6072768) as applied to claims 1 and 18 above respectively, further in view of Hreha (US Pat 6400696).

Consider claims 4 and 22, Noerpel, as modified by Wiedeman, teaches claims 1 and 18 above respectively, but does not particularly refer to demand assigned multiple access resource arbitration protocol. Hreha discloses demand an assigned multiple access resource arbitration protocol (see Hreha: col. 1 lines 1-27). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Noerpel and have DAMA incorporated in the invention as taught by Hreha, thereby improving dynamic resource management system in a pipe-bent or an on-board signal processing satellite communication between a user terminal and a service provider network.

5. Claims 5, 6, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noerpel et al. (US Pat 6249677) in view of Wiedeman et al. (US Pat 6072768) as applied to claims 1 and 10 above respectively, further in view of in view of Wiedeman et al. (US Pat 5594780).

Consider claims 5, 6, and 11, Noerpel, as modified by Wiedeman, teaches claims 1 and 10 above respectively, but does not explicitly refer to acknowledgement signaling. Wiedeman discloses acknowledgement signaling (Wiedeman: see col. 13 lines 25-34,

col. 16 lines 39-51, col. 22 lines 45-65). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Noerpel and have processor acknowledgment functions incorporated in the invention as taught by Wiedeman, thereby effectively handling mobile subscribers access to terrestrial service provider networks while roaming in areas that do not have cellular telephone access.

Consider claim 12, Noerpel, as modified by Wiedeman, teaches claim 10 above, but does not explicitly refer to status message. Wiedeman discloses status message (see Wiedeman: col. 7 lines 39-44, col. 10 lines 53-57, col. 11 lines 37-41). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Noerpel and have status functions incorporated in the invention as taught by Wiedeman, thereby effectively implementing useful notifications in the satellite-cellular communication system.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noerpel et al. (US Pat 6249677) in view of Wiedeman et al. (US Pat 6072768) as applied to claims 1 and 10 above respectively, further in view of Wiedeman et al. (US Pat 5594780) as applied to claim 6 above, further in view of Kelly et al. (US Pat 6987741).

Consider claim 7, Noerpel, as modified by Wiedeman, teaches claim 1 above, but does not explicitly refer to bandwidth allocation. Kelly discloses bandwidth allocation (see Kelly: col. 37 lines 27-66). It would have been obvious to a person of ordinary skill



in the art at the time the invention was made to modify the invention of Noerpel and bandwidth allocation incorporated in the invention as taught by Kelly, thereby effectively managing frequency space allocation to users in the satellite-cellular communication system.

7. Claims 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noerpel et al. (US Pat 6249677) in view of Wiedeman et al. (US Pat 6072768) as applied to claims 8 and 10 above respectively, further in view of in view of in view of Yamagiwa (US Pat 6532219).

Consider claims 9 and 15, Noerpel, as modified by Wiedeman, teaches claims 1 and 10 above respectively, but does not explicitly shows collision arbitration. Yamagiwa discloses collision arbitration (see Yamagiwa: col. 1 lines 13-39). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Noerpel and have collision arbitration functions incorporated in the invention as taught by Yamagiwa, thereby effectively handling transmission reservation in a mobile satellite communication system which uses a randomly access system and a serving system.

### ***Conclusion***

8. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amancio González, whose telephone number is (571) 270-1106. The Examiner can normally be reached on Monday-Thursday from 7:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached at (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

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*Amancio González*

AG/ag

December 22, 2006

*Nick Corsaro*  
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